

life in atopic dermatitis (AD) and a generic quality of life measure and from this use optimised algorithms to estimate health utility. **METHODS:** Multinomial logistic regression was used to estimate response probabilities to the SF-12 health survey from responses to the Dermatology Life Quality Index (DLQI) in patients enrolled into a clinical trial studying the long-term use of tacrolimus ointment. A random sample of 70% of patient responses was used for the regression analysis, with the remaining 30% used to test the predictive ability of the response mapping. Predicted and actual SF-12 responses were converted to SF-6D and EQ-5D health utilities using published algorithms (Brazier 2004 and Gray 2006) by Monte Carlo simulation. **RESULTS:** Evaluable data were available for 255 patients, 40% of whom were male, and for which the median age at screening was 28 years (IQR 22 to 38). The percentage of variance in item response attributable to predictor variable change ranged 15.6% (SFCALM) to 33.3% (SFLESS). The mean predicted utility in the test dataset was 0.797 (sd 0.092) by the SF-6D method and 0.787 (0.210) by EQ-5D. The mean squared error (MSE) between the actual and predicted utilities were 0.013 for SF-6D and 0.068 for EQ-5D. Predicted SF-6D utility was within 10% of the actual utility in 62.7% of cases while for predicted EQ-5D utility this fell to 39.8%. **CONCLUSION:** Response mapping of disease-specific quality of life in AD to generic quality of life SF-12 produced more reliable estimates of SF-6D utility than EQ-5D utility, and correlated closely with similar estimates made from a standard assessment of disease severity in eczema.

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PATIENTS' PERCEPTION OF LIFE FREE OF GLASSES AFTER CATARACT SURGERY: DEVELOPMENT OF THE FREEDOM FROM GLASSES VALUE SCALE (FGVS®)

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OBJECTIVE: To develop a patient self-administered questionnaire assessing the added value of complete independence from glasses in patients after multifocal intraocular lens surgery. **METHODS:** A qualitative study was performed to develop the questionnaire. Exploratory interviews with five cataract patients and six presbyopia patients with ReSTOR® implanted in both eyes for at least 6 months were conducted. After interview analysis, a conceptual model was developed. Items were generated simultaneously in French and Spanish based on the identified concepts and using patients' own words. Six patients completed the French test questionnaire and provided comments regarding questionnaire's structure and content. The questionnaire was refined. The Spanish test questionnaire then underwent a clinician review and was tested with four patients. Test versions were refined and the French and Spanish pilot versions of the questionnaire were subsequently produced. **RESULTS:** Nine global concepts were included in the conceptual model: global vision, practical constraints related to wearing glasses, impact of eye surgery on patient's life, improvement of the practical issues without glasses, improvement of the psychological constraints without glasses, physical appearance / aesthetic aspect (self-image and in the eyes of the others), surgery left behind, recommendation of surgery to others. The first version of the test questionnaire contained 26 items. After the test with French patients, two items were deleted. The Spanish test questionnaire was modified accordingly. Minor additional changes were brought after clinician review and patient tests of the Spanish version. The final questionnaire named 'Freedom from Glasses

Value Scale (FGVS®)' contained 21 items and four general additional questions. **CONCLUSION:** Beyond functional aspects, this qualitative study identified additional benefits in cataract and presbyopic patients' living free of glasses after receiving ReSTOR®. The FGVS® will allow these benefits to be assessed. It is available in French and Spanish. UK English and Danish linguistically validated versions are also available.

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ESTIMATING HEALTH RELATED UTILITY FROM SYMPTOM SEVERITY IN ATOPIC DERMATITIS (ECZEMA)

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OBJECTIVE: The purpose of this study was to conduct a statistical mapping between standard assessments of disease severity in atopic dermatitis (AD) and a generic quality of life measure and use optimised algorithms to estimate health utility. **METHODS:** Multinomial logistic regression was used to estimate response probabilities to the SF-12 health survey from assessment of AD severity using the modified Eczema Area & Severity Index (mEASI) in patients enrolled into a clinical trial studying the long-term use of tacrolimus ointment. A random sample of 70% of patient responses was used for the regression analysis, with the remaining 30% used to test the predictive ability of the response mapping. Predicted and actual SF-12 responses were converted to SF-6D and EQ-5D health utilities using published algorithms (Brazier 2004 and Gray 2006) by Monte Carlo simulation. **RESULTS:** Evaluable data were available for 255 patients, 40% of whom were male, and for which the median age at screening was 28 years (IQR 22 to 38). The percentage of variance in item response attributable to predictor variable change ranged from 19.8% (SFCALM) to 37.5% (SFENER). The mean predicted utility in the test dataset was 0.799 (sd 0.083) by the SF-6D method and 0.778 (0.203) by EQ-5D. The mean squared error (MSE) between the actual and predicted utilities were 0.012 for SF-6D and 0.075 for EQ-5D. Predicted SF-6D utility was within 10% of the actual utility in 64.8% of cases while for predicted EQ-5D utility this fell to 39.9%. **CONCLUSION:** In this study response mapping of AD symptom severity to SF-12 produced more reliable estimates of SF-6D utility than EQ-5D utility. In young adults with low co-morbidity the sensitivity of SF-6D at higher utilities make it be a more appropriate choice than EQ-5D where cases would otherwise be classified in perfect health.

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QUALITY OF LIFE AND PSYCHOLOGICAL PROBLEMS IN PATIENTS WITH ORAL MUCOSAL DISEASES

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OBJECTIVE: The measurement of oral health related QoL (OHRQoL) is generally limited to dental diseases. Our objective was to evaluate patients with oral mucosal diseases using an oral health-specific questionnaire (OHIP-14), a generic health status questionnaire (SF-12) and a general psychological health questionnaire (GHQ-12) to identify the possible presence of conditions such as depression or anxiety. **METHODS:** Consecutive patients coming to the oral health care unit of IDI-IRCCS in Rome were asked to complete the OHIP-14, the SF-12, and the GHQ-12 questionnaires. Both physicians and patients gave a global assessment of severity of disease (PhGA and PtGA, respectively) on a 5-point scale. Agreement between physicians and patients was assessed using Cohen's K statistic. **RESULTS:** Of 218 patients contacted, 206 participated in the study. Oral ulcer-

ations were the condition with the highest impact on OHRQoL. Women had poorer OHRQoL and higher GHQ-12 scores than males. There was a very strong correlation between questionnaires scores and PtGA, but none or very scarce between questionnaire scores and PhGA. The overall K between PtGA and PhGA was 0.14, i.e., only slight, and for some conditions it was even negative (e.g., -0.23 for non-malignant lesions). Patients whose condition was “underestimated” by the physicians (i.e., PtGA>PhGA) had the worst OHRQoL and psychological status among all patients in the study. **CONCLUSION:** The administration of specific and generic questionnaires provides a complete and clinically useful picture of the impact of oral diseases on quality of life and on psychological well-being. The combined use of PhGA and PtGA allows to define a group of patients with particularly high levels of quality of life impairment and psychological distress. This may be relevant since these patient characteristics have been linked to dissatisfaction with care, poorer treatment adherence, and possibly higher probability of legal litigation.

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APPLES AND ORANGES? ASSESSING THE RELATIONSHIP BETWEEN HEALTH AND VISION RELATED QUALITY OF LIFE

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OBJECTIVE: Cost-utility analysis is the preferred method of economic evaluation to support health policy decision-making in most developed nations. Utility estimation is based upon the untested assumption that a single universal construct, “health related quality of life” (HRQoL), is measured. We hypothesize that this is the case with vision related diseases. We test whether vision-related quality of life (VRQoL) is a distinct construct from HRQoL using two instruments: the SF-36 to measure HRQoL, and the NEI Vision Function Questionnaire (NEI-VFQ) to measure VRQoL. **METHODS:** Over 16 months, 443 patients from 18 ophthalmic practices were interviewed. The relationship among item responses from the SF-36 and NEI-VFQ was assessed using exploratory factor analysis (EFA) and variable cluster analysis (VCA). **RESULTS:** The results suggest that vision and non-vision related quality of life are indeed two distinct constructs. In EFA, no items from the NEI-VFQ loaded on constructs formed by the SF-36 items, or vice-versa. Variable cluster analysis confirms the EFA, with the SF-36 and NEI-VFQ items showing moderate correlation with items from their “home” instrument, but weak correlation with items from the other instrument. **CONCLUSIONS:** Our preliminary results provide evidence that VRQoL and HRQoL are two distinct constructs that have modest association. While these analyses are based upon use of functional based measures as opposed to preference based measures such as the standard gamble (SG) or time trade-off (TTO), the results may have important implications for the validity of preference based measures for assessment of effectiveness. If the SG or TTO (or similar instruments) do not adequately measure all aspects of health, interventions addressing poorly measured problems (vision-related problems in this case) may be substantially underestimated. If this is the case, health policy makers relying on cost-effectiveness studies using these instruments might incorrectly reject health programs for treatment of important medical conditions.

MAPPING THE NATIONAL EYE INSTITUTE VISUAL FUNCTION QUESTIONNAIRE (NEI-VFQ 25) TO THE INDEX VALUES FOR THE EQ-5D: A COMPARISON OF MODELS

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OBJECTIVES: To date, no model has explained the relationship between the NEI-VFQ and health state utilities such as those measured by the EQ-5D. Ordinary Least Square (OLS) is most commonly used to identify association but it may not be appropriate in low vision. In this study, we evaluate different model specifications to identify which better predicts the relative importance of the NEI-VFQ 25 dimensions on the EQ-5D index. **METHODS:** We compare OLS and Tobit approach using cross-sectional data (n = 155) at screening from a phase I/II clinical trial in patients with neovascular age-related macular degeneration (NV-AMD). We validate the models using a split-sample technique and calculate each model's mean predicted error and standard error. Correlations between the predicted EQ-5D index values derived from the NEI-VFQ 25 dimensions and the observed EQ-5D index score are compared across models. **RESULTS:** Mean prediction error from the Tobit model is lower than the OLS approach (26 vs. 39 percent). The standard errors of prediction of the Tobit and OLS models are 0.0263 and 0.0234, respectively. The predicted EQ-5D index value from the Tobit model provides better correlation with the observed EQ-5D index score compared to the OLS approach [Pearson Correlation Coefficients are 0.57 and 0.47, respectively]. **CONCLUSION:** In this situation, the Tobit model provides better predictive accuracy than OLS for explaining the relationship between the EQ-5D index and the NEI-VFQ 25. Tobit produces consistent estimates of the relationship between the EQ-5D index and the dimensions of the NEI-VFQ 25 by accounting for censoring and ceiling effect problems. Although it is sensitive to model misspecification, adjusting for heteroscedasticity nevertheless allows it to perform better than OLS. Verification of these results using the model and a second dataset is warranted.

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WORK RELATED LOST PRODUCTIVITY AND ITS ECONOMIC IMPACT IN CANADIAN PATIENTS WITH MODERATE TO SEVERE PSORIASIS

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OBJECTIVE: To determine the lost productivity of Canadian patients with moderate to severe psoriasis. **METHODS:** Seventy-nine consecutive Canadian dermatology patients were interviewed and completed the Work Productivity and Activity Impairment Questionnaire. The inclusion criteria were diagnosis with moderate to severe psoriasis by the treating dermatologist; 19 years of age or older and currently receiving treatment for psoriasis with either a biologic or alternative therapy such as phototherapy, systemic or topical treatments. Patient interviews and data collection occurred between September 21st, 2005 and November 8th, 2005. **RESULTS:** Eighty-one percent of patients reported working full-time. On average, 2.6 hours (±6.8) (about 6% of total work hours) were lost from work per week due to psoriasis-related events. When asked how much psoriasis affected their productivity while working, individuals on average